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ABSTRACT

Noting that the verbal interactions that transpire between teacher and student in the classroom setting are central to the instructional process, this paper offers reading teachers a systematic means of examining their own interactive patterns in the context of oral reading instruction. In addition, it provides teachers with a way of inspecting their theoretical orientations toward reading. The paper is divided into three major sections, with the first focusing on the nature and characteristics of oral reading instruction; the second on an explanation of FORMAS (Feedback to Oral Reading Miscue Analysis System), an observation system useful in representing the verbal interactions that accompany oral reading instruction; and the third on a discussion of the implications of the system in classroom settings and field-based research. (FL)

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Characterizing Teacher Feedback to Student Miscues During Oral Reading Instruction

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Paper presented at the Annual Conference of the International Reading Association
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Running Head: FORMAS

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Characterizing Teacher Feedback to Student Miscues

During Oral Reading Instruction

The verbal interactions which transpire between teacher and student in the classroom setting are central to the instructional process. Zintz (1980) suggests that a close examination of these interaction patterns has the potential for leading to more effective instruction - awareness being the first step toward improvement. Harste and Burke (1977) present a conceptual framework useful in examining classroom interaction as it relates to the teaching of reading. They argue that a teacher's efforts at reading instruction are representative of a particular theoretical orientation, i.e., a set of assumptions, beliefs and knowledge about reading that the teacher uses and operates upon to make instructional decisions. Through careful analysis of the range of decisions teachers make, from materials selection, to time allocations, to interactive patterns, it is possible to infer toward a given teacher's theoretical orientation and subsequently explore the differential effects on student behaviors of various conceptual models of reading. This process of making explicit what is implicit founded on observation can become the basis for systematic changes or modifications of teacher behavior. The purpose of this paper will be to offer reading teachers a systematic means to examine their own interactive patterns in the context of oral reading instruction with a broader goal of providing teachers one way to inspect and introspect into their theoretical orientation toward reading. The information presented should also be useful to reading supervisors involved in staff

development as well as researchers studying classroom processes. The paper will be divided into three major sections with the first focusing on the nature and characteristics of oral reading instruction, the second on an explanation of an observation system useful in representing the verbal interactions which accompany oral reading instruction, and the third on a discussion of implications for use of the observation system in classroom settings and field-based research.

Oral Reading Instruction

The rapid and dramatic shift from oral to silent reading instruction during the 1920's is well documented. Nila B. Smith (1965) attributed this movement, in large part, to a general shift toward an emphasis on meaning in education and to research findings which indicated that comprehension was superior during silent reading. One might infer from an examination of the most popular instructional materials as well as methods texts used in the preparation of reading teachers that oral reading instruction - defined as the student(s) reading from a text aloud with the goal of improving decoding skills - has all but disappeared. Such is not the case. There is abundant evidence to suggest that oral reading instruction persists as a common element of most primary (Austin & Morrison, 1963) and remedial programs (Howlett & Weintraub, 1979). Further, there is a growing body of research indicating that those teachers who frequently engage students in oral reading instruction are among the more effective in terms of student achievement gains in reading (Anderson & Evertson, 1978; Stallings, 1980). It appears that a strong case can be made for the inclusion of some forms of oral reading instruction as one part of a comprehensive reading program and that many of the arguments against this instructional practice may be either

misinformed or misdirected (Hoffman, 1980).

The verbal interaction which accompanies oral reading instruction typically revolves around the efforts of teachers to offer feedback to the miscues made by students. Implicit in this feedback is information from the teacher's theoretical orientation which informs the student's understanding of what is "good" reading. As student miscues occur, the teacher is faced with instructional decisions about the most appropriate course of action. A teacher's decision making matrix has at least three dimensions: (1) selectivity - which miscues will be responded to; (2) timing - when will they be responded to; and (3) form - how will they be responded to (Hoffman, 1979). Some teachers may choose to respond to all deviations from text, while others may respond to only those miscues which violate the meaning of a passage. Some teachers may intervene immediately when a student miscues, others may wait. Some teachers may give the student the correct (i.e., text) word when he miscues, while others may provide various kinds of cues designed to lead the student to identify the word. The majority of teachers likely rely on combinations of these strategies in consideration of such factors as a given child's strengths or weaknesses and the focus of the lesson for that day. We are surprisingly ignorant in our field as to the ways in which these teacher feedback strategies relate to various patterns of student learning and in which contexts.

FORMAS - Feedback to Oral Reading Miscue Analysis System

The FORMAS coding procudure has been developed as a simple means for constructing an explicit representation of the verbal interaction which accompanies oral reading instruction. The version of the FORMAS taxonomy

to be presented in this section is a modification of a more elaborate instrument. (For a discussion of the reliability and validity characteristics of this instrument see Hoffman and Baker, 1980). The modified version is designed specifically for use in classroom settings. The taxonomy will be reviewed in this narrative with frequent references to the completed coding sheet in Figure 1* and the set of definitions presented in Figure 2. The taxonomy is divided into five major clusters of behavior.

Cluster I identifies seven categories of miscue types. With the exception of "Don't Know" and "Hesitation Miscues" which are not coded at this level, the observer must judge the degree to which each miscue changes text meaning. In addition the observer must determine the degree to which the observed response resembles the grapho-phonic characteristics of the expected response. Insertion and omissions are not coded relative to grapho-phonic similarity, since the expected and observed responses respectively are by definition unspecified. The criterion used for determining grapho-phonic similarity and meaning change follow closely the guidelines proposed by Goodman and Burke (1972). Note that the FORMAS taxonomy focuses upon single word miscues rather than complex miscues that involve two or more consecutive text words. This single word focus simplifies the coding process and ensures greater reliability and validity. A frequency count of student miscues involving consecutive text words can be kept under the category "Multiple Miscues."

Cluster II addresses how the student is attempting to deal (if at all)

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*Note: Blank coding sheets suitable for reproduction are available on request from: James V. Hoffman, The University of Texas at Austin, Department of Curriculum and Instruction, Education Building 406, Austin, Texas 78712.

with his or her own miscue prior to any intervention from the teacher or another student. The first behavior manifested by the student following a miscue is coded in the appropriate Cluster II category. If feedback is offered by the teacher or another student so quickly as to preclude any opportunity for reaction by the student, then this cluster is coded as "No Opportunity to React."

The teacher's verbal response to both the miscue and the student's reaction to the miscue provides the focus for Cluster III. The initial response of the teacher determines which of the three types of feedback is to be coded: none, terminal, or sustaining. If sustaining feedback (i.e., teacher feedback which is intended to elicit identification of part or all of the target word by the student who made the miscue) is used, one or more of the three different forms of feedback will also need to be coded. Numbers rather than crosses may be entered under the appropriate forms of feedback to record the sequence of sustaining feedback behaviors used by a teacher. Two categories are used to capture the temporal relationship between the occurrence of a miscue and the teacher's initial response: elapsed time and the point of intervention. When teacher feedback follows a hesitation miscue, "timing" commences after the three second hesitation has elapsed. Three categories are available to specify the point at which the teacher initially offers feedback relative to the location of the miscue in a sentence. Note that these three categories are all coded relative to sustaining and terminal feedback (i.e., the teacher providing the appropriate text word or calling on another student).

A response by another student to a reader's miscue, if in evidence,

determines the classification of feedback coded in Cluster IV. This cluster of student verbal feedback behaviors is used to classify student behavior, other than the reader's, that is miscue directed during group oral reading instruction. In terms of the point of identification and the timing of identification, the "time" and "point" categories within student feedback parallel the content of the analogous categories in Cluster III. The final cluster (V) focuses on what happens ultimately to the observed miscue. The categories in this cluster specify who identifies the text word in question or whether the miscue is left uncorrected.

We would suggest that in using the taxonomy, a sufficient amount of oral reading instruction be tape recorded to capture at least twenty-five miscues. The recommended procedure is then to work through each miscue one by one recording the observed and expected responses and then coding the information within each cluster for each miscue. Once the miscues and feedback have been coded, percent distributions can be computed to develop a profile of teacher/pupil interactive behaviors.

In the profile presented in Figure 1, we see that approximately half the miscues recorded for this group of students were substitutions which generally conveyed the author's intended meaning and which were not grapho-phonically similar to the expected responses. The most frequent reaction to miscues by the students was to continue on in the text. This type of reaction was typically associated with miscues that altered the author's intended meaning only slightly. There were only three instances of unsolicited feedback by other students with each instance occurring prior to the next sentence break and at least three seconds after the miscue. The majority of miscues were resolved by the students (56 percent).

Though the teacher under study usually did not respond verbally to

student miscues (76 percent), she did on occasion use both sustaining (20 percent) and terminal (4 percent) types of feedback. A range of cues was used to prompt children with the teacher most often focusing student attention upon the context surrounding a miscue. Initial prompts were offered at least three seconds after a miscue and either before (66 percent) or at (34 percent) the next sentence break. The teacher identified only two misuces (8 percent) and allowed 36 percent of the miscues to remain unidentified. Note that the unidentified miscues, however, changed the author's meaning only slightly.

Potential Uses and Implications for Research

In addition to providing teachers with insight into their own interactive patterns, this observational system can be useful in examining the stability of behaviors - either teacher or student - across different instructional contexts. For example, teachers might be interested in looking at how their patterns differ between instruction with a good group of readers versus a poorer one. Teachers might also use the profile from this observational system as an index of their current behavior and then systematically make slight changes in their behavior and observe the effects of these changes on student behaviors. For example, a teacher might want to work on extending the time s/he waits between the occurrence of a miscue and the initiation of feedback. Recordings of subsequent instructional episodes could be used to analyze the degree to which the teacher is successful in extending this wait-time as well as examine changes in student behaviors (e.g., an increase in the number of student self-corrections).

To the researcher, the observation of oral reading instruction using

this system offers great potential for enhancing our understanding of classroom processes both in terms of how teacher behavior affects pupils as well as how pupil behavior affects teachers. Field studies using perhaps a process/product type research paradigm should be useful in identifying and isolating factors associated with specific student outcomes.

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Figure Captions

Figure 1. A sample FORMAS coding profile.

Figure 2. A set of Definitions to accompany the FORMAS Coding Profile.

Note: Both figures are reductions of larger copies. If needed, either of the figures can be reduced in such a way as to facilitate printing on two pages rather than just one.

FORMAS

MISCUE NUMBER	EXPECTED RESPONSE	OBSERVED RESPONSE	MISCUE: TYPE: INSERTION	OMISSION	SUBSTITUTION	MISPRONUNCIATION	DON'T KNOW	HESITATION	REPETITION	MISCUE: CHARACTERISTICS: LITTLE CHANGE IN MEANING	SUBSTANTIAL CHANGE IN MEANING	HIGH GRAPHO-PHONIC	LOW GRAPHO-PHONIC	REACTIONS: CONTINUATION	REPEATED ATTEMPT	PAUSE	CALL FOR HELP	NO OPPORTUNITY	IMMEDIATE SELF CORRECTION	TEACHER VERBAL FEEDBACK: TYPE: NO VERBAL FEEDBACK	SUSTAINING FBK	TERMINAL FEEDBK	FORM: ATTENDING	GRAPHO-PHONIC	CONTEXT	TIMING: LESS THAN 3 SEC.	MORE THAN 3 SEC.	POINT: BEFORE NEXT SENTENCE BREAK	AT THE NEXT SENTENCE BREAK	AFTER NEXT SENTENCE BREAK	STUDENT VERBAL FEEDBACK: TYPE: NONE	SOLICITED	UNSOLICITED	TIME: LESS THAN 3 SEC.	MORE THAN 3 SEC.	POINT: BEFORE NSB	AT NSB	AFTER NSB	RESOLUTION: TEACHER IDENTIFIES MISC.	STUDENT IDENTIFIES MISC.	OTHER IDENTIFIES MISC.	UNCORRECTED MISCUE
1	RESCUED (5)	SAVED (1)			X					X			X	X						X										X									X
2	A (20)	ONE (1)			X					X			X	X						X										X									X
3	THE (40)	A (1)			X					X			X	X						X										X									X
4	LONELY (50)	ALONE (1)			X					X			X	X						X										X									X
5	EXHAUST (69)	— (1)						X		-	-	-	-		X							X							X					X					
6	WASN'T (76)	WAS (1)		X							X	-	-			X				X										X					X					
7	PENETRATE (85)	PENTRATE (1)				X					X	X				X					X		1		2		X	X				X		X					
8	— (100)	THE (1)	X							X		-	-	X						X										X									
9	PATTERN (130)	PATTERNS (1)	X							X		-	-	X						X										X									
10	COVERS (136)	HATCHES (1)			X					X			X	X						X										X									
11	THROUGH (145)	IN (4)			X					X			X	X						X										X									
12	INTER (152)	— (4)				X				-	-	-	-			X					X		1				X											
13	SIEGE (190)	SAGA (4)				X					X		X		X						X		2	1		X	X											
14	BUT (200)	— (4)							X	X		X		X							X		2	1		X	X						X					
15	FOUNDER (215)	FOUNDERED (4)	X							X		-	-						X											X									
16	HELPLESSLY (228)	HELPLESS (4)		X						X		-	-	X																X									
17	ROAD (236)	STREET (4)			X					X			X	X																X									
18	ANNOYED (247)	ANGER (4)			X					X			X	X																X									
19	CERTAIN (251)	CURTAIN (2)				X					X	X							X											X									
20	BENEATH (266)	UNDER (2)			X					X			X	X																X									
21	POOR (270)	BAD (2)			X					X			X						X											X									
22	VEERED (290)	— (2)						X		-	-	-	-		X							X								X									
23	TOWARD (315)	TO (2)			X					X			X						X											X									
24	-	THE (2)	X							X		-	-	X																X									
25	THEN	-							X	X		X		X																X									
	MULTIPLE MISCUE	HH I	-	16	8	44	12	4	8	8	81	19	25	75	60	12	12	0	0	16	76	20	4	12	25	63	0	100	64	34	0	88	0	12	0	100	100	0	0	8	44	12	36

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TEACHER Ms. DAVIS
GROUP 2
STUDENT(S) 1. TOM 2. OSCAR 3. SUE 4. TIFFANY
DATE 9 APRIL 19[illegible]
TEXT VENTURES

PERCENT: 90 80 70 60 50 40 30 20 10

MISCUE TYPE | MEANING CHANGE | GRAPHO-PHONIC SIMILARITY | STUDENT BEHAVIOR FOLLOWING MISCUE | FEEDBACK TYPE | FEEDBACK FORM | FEEDBACK TIMING | POINT OF FEEDBACK | FEEDBACK TYPE | FEEDBACK TIMING | POINT OF FEEDBACK | MISCUE RESOLUTION

MOSEMAN 1966 BASED

FORMAS

MISCUE NUMBER	EXPECTED RESPONSE	OBSERVED RESPONSE	MISCUE: TYPE: INSERTION	OMISSION	SUBSTITUTION	MISPRONUNCIATION	DON'T KNOW	HESITATION	REPETITION	MISCUE: CHARACTERISTICS: LITTLE CHANGE IN MEANING	SUBSTANTIAL CHANGE IN MEANING	HIGH GRAPHO-PHONIC	LOW GRAPHO-PHONIC	REACTIONS: CONTINUATION	REPEATED ATTEMPTS	PAUSE	CALL FOR HELP	NO OPPORTUNITY	IMMEDIATE SELF CORRECTION	TEACHER VERBAL FEEDBACK: TYPE: NO VERBAL FEEDBACK	SUSTAINING FBK	TERMINAL FEEDBK	FORM: ATTENDING	GRAPHO-PHONIC	CONTEXT	TIMING: LESS THAN 3 SEC.	MORE THAN 3 SEC.	POINT: BEFORE NEXT SENTENCE BREAK	AT THE NEXT SENTENCE BREAK	AFTER NEXT SENTENCE BREAK	STUDENT VERBAL FEEDBACK: TYPE: NONE	SOLICITED	UNSOLICITED	TIME: LESS THAN 3 SEC.	MORE THAN 3 SEC.	POINT: BEFORE NSB	AT NSB	AFTER NSB	RESOLUTION: TEACHER IDENTIFIES WD.	STUDENT IDENTIFIES WD.	OTHER IDENTIFIES WD.	UNCORRECTED MISCUE
1	RESCUED (5)	SAVED (1)			X					X			X	X						X											X										X
2	A (20)	ONE (1)			X					X			X	X						X											X										X
3	THE (44)	A (1)			X					X			X	X						X											X										X
4	LONELY (56)	ALONE (1)			X					X			X	X						X											X								X		
5	EXHAUST (69)	— (1)						X		-	-	-	-		X							X					X		X		X						X	X		
6	WASNT (76)	WAS (1)		X							X	-	-			X				X											X							X		
7	PENETRATE (85)	PENTRATE (1)				X					X	-	-			X					X			1		2		X	X			X					X			
8	— (100)	THE (1)	X							X		-	-	X						X											X									X
9	PATTERN (132)	PATTERNS (1)	X							X		-	-	X						X											X									X
10	COVERS (138)	HATCHES (1)			X					X			X	X						X											X									X
11	THROUGH (165)	IN (4)			X					X			X	X							X				1			X		X									
12	INTER (182)	— (4)					X			-	-	-	-			X					X				2	1		X	X								X		
13	SIEGE (190)	SAGA (4)				X					X		X		X						X				2	1		X	X			X					X		
14	BUT (200)	— (4)							X	X			X	X						X											X								
15	FOUNDERED (214)	FOUNDERED (1)	X							X		-	-						X	X											X								
16	HELPLESSLY (224)	HELPLESS (4)		X						X		-	-	X						X											X								
17	ROAD (236)	STREET (4)			X					X			X	X						X											X								X	X
18	ANNOYED (247)	ANGER (4)			X					X			X	X						X											X								X	X
19	CERTAIN (251)	CURTAIN (2)				X					X	X							X	X											X							X		
20	BENEATH (266)	UNDER (2)			X					X			X	X						X											X									
21	POOR (276)	BAD (2)			X					X			X						X	X											X									
22	VEERED (294)	— (2)						X		-	-	-	-		X						X					1		X	X										
23	TOWARD (315)	TO (2)			X					X			X						X	X											X									
24	-	THE (2)	X							X		-	-	X						X											X									
25	THEN	-							X	X			X	X						X											X									
MULTIPLE MISCUE	HHT	%	16	8	44	12	4	8	8	81	19	25	75	60	12	12	0	0	16	76	20	4	12	25	63	0	100	66	34	0	88	0	12	0	100	100	0	0	8	44	12	36

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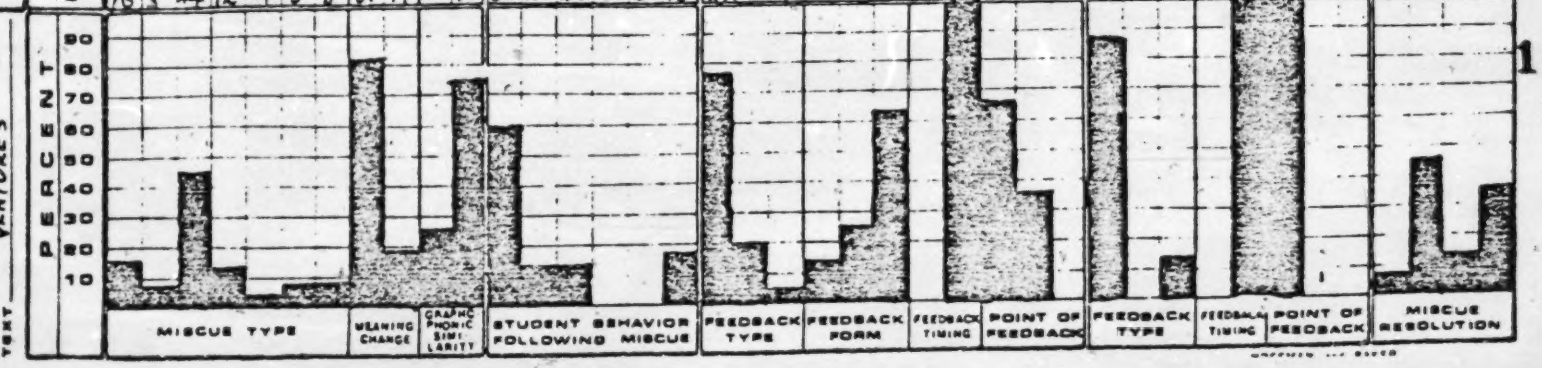
TEACHER Ms. DAVIS
GROUP 2
STUDENT(S) 1. TOM 6. OSCAR 7
2. SUE 4. TIFFANY
DATE 9 APRIL MCI
TEXT VENTURES



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1. Miscue number - the sequence for each miscue in relationship to other coded miscues.
2. Expected response - a text word and/or its numerical position in the sequence of text words.
3. Observed response - a student response and/or the identification number of the student reading.
4. Miscue - an observed response that differs from an expected response.
5. Miscue type - classification scheme for observed miscues.
6. Insertion - the reader inserts a word or an affix which is not present in the text.
7. Omission - the reader omits a word or an affix which is present in the text.
8. Substitution - the reader substitutes a word or an affix for one which is present in the text.
9. Mispronunciation - the reader substitutes a partial or complete nonsense utterance for a word or affix which is present in the text.
10. Don't know - the reader stops before attempting a word and verbally requests teacher assistance.
11. Hesitation - the reader pauses before attempting a word for at least 3 seconds or the teacher intervenes before the 3 second period elapses.
12. Repetition - saying a text word or set of adjacent text words two or more times.
13. Miscue characteristics - qualitative features of each particular type of miscue.
14. Little meaning change - the miscue alters the author's intended meaning only slightly.
15. Substantial meaning change - the miscue alters the author's intended meaning significantly.
16. High grapho-phonic similarity - at least 2 of the 3 parts of the observed response conform to the expected response.
17. Low grapho-phonic similarity - less than 2 of the 3 parts of the observed response conform to the expected response.
18. Reactions - how the reader initially deals with his miscue.
19. Continuation - student continues reading with no apparent attention to the miscue.
20. Repeated attempts - the reader makes repeated attempts at identifying the text word.
21. Pause - student stops reading for at least 2 seconds after the miscue occurs.
22. Call for help - reader explicitly requests teacher assistance after miscue has been made.
23. No opportunity for reaction - teacher or another student intervenes within 2 seconds of the miscue occurring and before any other reaction by the student is evidenced.
24. Immediate self-correction - student self corrects the miscue immediately.
25. Teacher verbal feedback - initial verbal teacher behavior that follows a miscue and reader's reaction to the miscue and relates to the expected or observed response.
26. Feedback type - the general nature of teacher feedback.
27. No verbal feedback - teacher displays no verbal feedback strategy which is directly related to the identification of the target word.
28. Sustaining feedback - teacher verbal feedback that provides the reader with the opportunity to identify part or all of an expected response.
29. Terminal feedback - teacher identifies target word or calls on another student.
30. Feedback form - specific characteristics of sustaining teacher feedback.
31. Attending - sustaining feedback which is noncue focusing, e.g., "try again."
32. Grapho-phonic - sustaining prompt which relates to visual and/or sound related characteristics of the miscue and/or the expected response.
33. Context - a sustaining prompt which relates to the surrounding semantic (meaning) or syntactic (structural) features.
34. Time of teacher feedback - the time in seconds that has elapsed between the miscue and the initiation of feedback.
35. Less than 3 seconds - time period which intervenes between the occurrence of a miscue and teacher feedback.
36. More than 3 seconds - time period which intervenes between the occurrence of a miscue and teacher feedback.
37. Point of feedback - sentence position relative to the miscue at which the teacher provides feedback.
38. Before the next sentence break - teacher feedback offered before the student completes reading the sentence containing the target miscue.
39. At the next sentence break - teacher feedback offered when the student completes reading the sentence containing the target miscue.
40. After the next sentence break - teacher feedback offered when the student has read beyond the sentence containing the target miscue.
41. Student verbal feedback - verbal behavior of a student other than the reader relating to the expected or observed response.
42. Student feedback type - the general nature of other student verbal feedback.
43. None - no other student offers verbal feedback directly related to the miscue.
44. Solicited - a student's verbal feedback that is requested by a teacher.
45. Unsolicited - verbal feedback that is volunteered by a student and not requested by a teacher.
46. Time of student feedback - the time in seconds that has elapsed between the miscue and the initiation of a student's feedback.
47. Less than 3 seconds - time period which intervenes between the occurrence of a miscue and student feedback.
48. More than 3 seconds - time period which intervenes between the occurrence of a miscue and student feedback.
49. Point of feedback - sentence position relative to the miscue at which a student provides feedback.
50. Before the next sentence break - other student feedback offered before the reader completes the sentence containing the target miscue.
51. At the next sentence break - other student feedback offered when the reader completes the sentence containing the target miscue.
52. After the next sentence break - other student feedback offered after the reader has progressed beyond the sentence containing the target miscue.
53. Miscue resolution - whether or not the miscue is corrected and the individual correcting the miscue.
54. Teacher identifies word - teacher identifies word (or corrects a student's miscue.)
55. Student identifies word - reader self-corrects his own miscue.
56. Other identifies word - person other than the teacher or student reading identifies target word.
57. Uncorrected miscue - student continues reading with miscue left uncorrected.
58. Multiple miscue - a tallying of student generated miscues that involves two or more consecutive text words which are not attended to individually either through self-correction or teacher feedback.